PHYX428-3 Spring 2009 : Quantum Field Theory 3

Homework Assignment 3 : Goldstone Bosons and Effective Action

Reading Assignment : Peskin & Schroeder, Chapter 11

1. Problem 11.2 in Peskin and Schroeder.

2. For the theory of problem 1, compute the effective action to one loop order, for constant ϕ_{cl}^i, using the functional methods we applied to the linear sigma model in class. Renormalize as necessary in the $\overline{MS}$ scheme.